Meeting minutes 26- March-20001

Presents: J. Beebe-Wang, M. Blaskiewicz, P. Cameron, N. Catalan-Lasheras, D. Davino, A. Fedotov, K. Gardner, H. Hahn, Y. Y. Lee, A. Luccio, B. McGahern, D. Raparia, N. Tsoupas, B. Weng, D. Witkover

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1. News from B. Weng on last week meeting with SNS management. We (BNL) have to work on our attitude problem and become team players. The proposed PCR's should be approved soon. It was unofficially stated that from now on, changes in design and procurement will be notified to Oak Ridge but do not need such detailed PCR's. We have exceeded our travel budget by 15% up to know and future attendants to conference have to be limited. The attendants to PAC and other conferences will be known by the end of this week.

2. YY. Lee There is a current discussion on the magnet powering on the ring. The two different diameter quads (20 and 26 cm diameter) are now powered by two different power supplies. A possible reduction of cost will be to use only one PS plus a trim PS. However, the geometry and winding of the large Quad has to be carefully revised to get the correct scaled magnetic fields all the way up to 1.3 GeV. The design of the magnet is well advanced to introduce big changes without consequences in schedule. A meeting will take place tomorrow to discuss possible implications.

3. Height adjustment in the RTBT line. DR, YYL and NT have been working in an alternative scheme to recover the right beam height in the RTBT line without the use of the two dipoles. By rolling the Lambertson magnet two degrees, we can produce a vertical kick in the beam of 0.6mrad. A small dipole corrector can correct the remaining angular error. NT and DR are checking that no coupling is introduced.

4. Narrow quad. Following the discussion of last week, NT showed the latest results of chamfering the magnet. A radial cut of 3.5 mm, 65 mm along the magnet will produce acceptable dodecapole components of the order of 10^{-4}. Other solutions are under investigation. PC expressed his concern about the mounting of the BPM in the magnet coil. Everything should be ok, provided the radial cut is not larger than 3.5 mm.

5. Booster Studies. MB informed that this is the last week we can take data from the booster for SNS studies. After the 1st of April a new user will be introduced and there is no guaranteed time for us. We will work all this week from 8:00 to 10:00.

6. Beam loss monitors. DW asked for input in loss rates from the physics and operation group including the front end, LINAC, ring and transfer lines. He needs to define the parameters of the beam loss monitor system and the operation range. He suggested as a lower limit 10^{-2} Watts/m to have resolution during measurements. The upper limit will be given by a point loss of 1% of the beam. YYL notes that these limits are reasonable. For a loss over 1% of the beam we do not need a linear behavior of the detectors. Special monitors with a different gain will form a secondary system for higher loss locations as collimators.

7. Tune measurements. PC introduced the different tune measurement devices to be included in the ring. He proposed three different methods to measure the coherent and incoherent tune shift depending also in space charge and chromaticity. More study including some simulations needs to be done.

8. SNS software applications. JBBW introduced a new application for orbit bump optimization. The application developed by J. Tang and herself, is working offline using EPICS and contains all the calculations for adjusting the injection kickers during accumulation to produce the required painting and beam profile.